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MONTANA Water Supply Outlook Report as of April 1, 1992

Mountain precipitation was well below average across the state during March with most areas receiving only 30 to 50 percent average amounts. Cumulative precipitation since October 1 now stands in the 70 to 80 percent of average range over most of the mountainous areas of the state. Snowpack conditions continued to deteriorate during March and snowmelt is progressing about a month ahead of normal. Basinwide snowpacks are now below to well below average throughout the state. Reservoir storage levels are generally near to above average. Spring and summer streamflows are now expected to be below to well below average across the state. Some basins in western and central Montana are forecast to have near record low flows this spring and summer. Most Surface Water Supply Indices are in the moderately dry to extremely dry range.

SNOWPACK

Due to the unseasonably dry and mild weather patterns persisting over the state, snowpack conditions continued to deteriorate for the fourth consecutive month. Snowmelt began in late February at the low and mid-elevations and is progressing about a month ahead of normal. Low elevation snowpacks are nearly depleted. Mid-elevation snowpacks are well below average while higher elevations snowpacks are generally in the below to well below average range. West of the Divide, basin-wide snowpacks generally range from about 60 to 75 percent of average with the lowest snowpacks being reported in the Bitterroot Basin. East of the Divide, snowpack conditions generally range from 55 to 70 percent of average except in the Jefferson River Basin where snowpacks are about 80 percent of average. The lowest snowpack conditions east of the Divide are found in the Smith, Judith, Musselshell and Milk River Basins. Snow conditions in the Lower Yellowstone tributary basins in Wyoming are about 75 percent of average. Current weather patterns indicate snowmelt and the subsequent runoff will be 4 to 6 weeks earlier than normal this spring.

PRECIPITATION

MOUNTAIN AREAS - March was another extremely dry month over the mountainous areas of Montana. Mountain precipitation totals for the month were well below average across the state. This the fourth consecutive month of below to well below average precipitation conditions. West of the Divide, mountain precipitation ranged from about 30 to 50 percent of average. Cumulative precipitation totals since October 1 now stand in the 70 to 80 percent of average range. East of the Divide, mountain precipitation was generally in the 40 to 50 percent of average range for March except on the Lower Yellowstone tributaries in Wyoming where precipitation totals were about 85 percent of average. Since October 1, cumulative precipitation totals are now in the 70 to 80 percent of average range except on the Milk and St. Mary River Basins where cumulative totals are about 60 percent of average and on the Lower Yellowstone tributaries in Wyoming cumulative totals are about 85 percent of average.

VALLEY AREAS - March continued the overall trend of warm and dry conditions. Some areas on both sides of the Divide had normal and slightly above average precipitation amounts by the end of the month. Stations west of the Divide reported precipitation amounts ranging from 0.1 to 1.75 inches. The northern sections were below normal with the central sections above normal. East of the Divide also had areas with good precipitation. The southern portions of the state as well as the northern corner of northeastern Montana received normal to slightly above normal precipitation. The rest of the state receive below normal amounts.

RESERVOIRS

Irrigation reservoir storage levels are reported to be well below average in Painted Rocks, Lima, Lake Sherburne and Tongue River Reservoirs. Below average storage levels are also reported in the eight Mission Valley Reservoirs, Como, Clark Canyon, Middle Creek, Smith River and Martinsdale Reservoirs. Elsewhere, irrigation reservoirs generally have near to above average storage levels. The larger multipurpose reservoirs also have near to above average contents except for Flathead Lake and Fort Peck Reservoirs where storage levels are about 80 percent of average.

STREAMFLOW

Water supply forecasts for the spring and summer period continue to be lowered following another month of well below average precipitation across the state. Spring and summer streamflows are projected to be below to well below average throughout Montana with some basins in the western and central parts of the state expected to have near record low flows. West of the Divide, streamflow forecasts generally range from about 55 to 75 percent of average with the Bitterroot, Upper and Lower Clark Fork Basins having the lowest forecasts. Some basins in the Upper Clark Fork are forecast to be near record low flows. East of the Divide, forecasts generally range from about 50 to 75 percent of average. Exceptions are on the Big Hole, Ruby and Madison Rivers where streamflows are expected to be in the 80 to 85 percent of average range and on the Musselshell River where streamflows are forecast to be only about 45 percent of average.

SOIL MOISTURE

Mountain soil moisture levels have improved as a result of the early snowmelt. High elevation soils, however, generally remain drier than normal and will continue to absorb snowmelt until these deficits are satisfied. Low elevation soils where the snow is depleted are beginning to dry out as a result of little or no precipitation. Moisture conditions in the deeper soil zones generally remain drier than normal. Valley soils are also drier than normal over most of the state.

SURFACE WATER SUPPLY INDEX

The Surface Water Supply Index (SWSI) is a measure of available surface water supplies during the spring and summer months. The index ranges from -4.0 to +4.0. A SWSI of -4.0 represents an extremely dry situation, 0 is near a normal situation and +4.0 represents an extremely wet situation. The SWSI provides a scale to evaluate various levels of wetness or dryness and water supply conditions across the state. The SWSI takes into account snowpack, mountain precipitation, soil moisture and available reservoir storage.

SWSI Scale

SWSI	DESIGNATION
+3.0 to +4.0	Extremely wet
+2.0 to +3.0	Moderately wet
+1.0 to +2.0	Slightly wet
-1.0 to +1.0	Near average
-1.0 to -2.0	Slightly dry
-2.0 to -3.0	Moderately dry
-3.0 to -4.0	Extremely dry

SWSIs as of April 1, 1992 for the remainder of the 1992 irrigation season, on the major river basins in Montana are as follows:

SWSI	Basin
-2.2	Kootenai River at Ft. Steele (Kootenay in Canada)
-3.5	Tobacco River
-3.5	Kootenai Ft. Steele to Libby Dam
-0.6	Kootenai River below Libby Dam
-3.3	Fisher River
-3.2	Yaak River
-3.4	N. Fk. Flathead River
-2.9	Middle FK Flathead River
-2.1	S. Fk. Flathead River
-2.8	Flathead River at Columbia Falls
-3.5	Stillwater/Whitefish Rivers
-3.2	Swan River
-2.8	Flathead River at Polson
-3.3	Mission Valley
-1.6	Little Bitterroot River
-3.5	Clark Fork River above Rock Creek
-2.4	Blackfoot River
-3.3	Bitterroot River
-2.9	Clark Fork River above Missoula
-3.0	Clark Fork River below Bitterroot River
-2.9	Clark Fork River below Flathead River
-2.7	Beaverhead River
-1.7	Ruby River
-2.5	Big Hole River
-3.2	Boulder River (Jefferson)
-2.5	Jefferson River
-1.6	Madison River
-3.1	Gallatin River
-2.4	Missouri River above Canyon Ferry
-2.1	Missouri River below Canyon Ferry
-3.2	Smith River
-2.0	Sun River
-2.4	Teton River
-0.5	Birch/Dupuyer Creeks
-2.2	Marias River
-1.0	Musselshell River
-2.8	Missouri River above Ft. Peck
-2.2	Missouri River below Ft. Peck
-2.8	Milk River (USBR users)
-3.7	Milk River (other users)
-2.8	Yellowstone River above Livingston
-3.4	Shields River
-2.6	Boulder River (Yellowstone)
-2.7	Stillwater River
-2.5	Rock/Red Lodge Creeks
-2.5	Clarks Fork River
-2.7	Yellowstone River above Bighorn River
-1.0	Bighorn River below Bighorn Lake
-2.5	Little Bighorn River
-1.9	Yellowstone River below Bighorn River
~~n/a~~ -2.6	Tongue River
-0.6	Powder River

KOOTENAI RIVER BASIN in Montana as of April 1, 1992

Mountain precipitation for March was about 30 percent of average, bringing the cumulative precipitation since October 1 down to about 75 percent of average. Basinwide snowpacks are now well below average in the 60 to 70 percent of average range. Soil moisture deficits are being replenished by melting snow except at the lower elevations where the snowpacks are depleted. Storage in Lake Koocanusa is a little above average. Streamflows for the spring and summer period are forecast to be below average on the Kootenai Mainstem and well below average on the smaller tributaries in Montana. The Surface Water Supply Indices range from -3.0 to -3.5 on the tributary streams. The Surface Water Supply Index for the Kootenai River Mainstem below Libby Dam is -0.6.

KOOTENAI RIVER BASIN in Montana
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	50% (Most Prob) (% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
TOBACCO nr Eureka							
APR-JUL	66	79	88	66	97	110	133
APR-SEP	72	88	98	67	109	124	147
KOOTENAI bl Libby Dam (1,2)							
APR-JUL	3410	4170	4520	78	4870	5630	5779
APR-SEP	4000	4890	5300	78	5710	6600	6772
FISHER nr Libby							
APR-JUL	114	133	145	62	158	176	234
APR-SEP	126	144	157	63	170	188	250
YAAK nr Troy							
APR-JUL	250	295	325	67	355	400	483
APR-SEP	265	310	340	67	370	415	505
KOOTENAI at Leonia (1,2)							
APR-JUL	4190	5130	5560	77	5990	6930	7199
APR-SEP	4810	5900	6390	77	6880	7970	8275

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

KOOTENAI RIVER BASIN in Montana
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
LAKE KOOCANUSA	5748.0	2333.0	1078.0	2141.0

KOOTENAI RIVER BASIN in Montana
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
EAST KOOTENAI in B.C.	27	54	72
KOOTENAI MAINTSTEM in MT	28	53	62
TOBACCO	5	53	71
FISHER	4	64	66
YAAK	10	51	59
KOOTENAI in MT	35	52	61
KOOTENAI ab Bonners Ferry	62	53	64

FLATHEAD RIVER BASIN as of April 1, 1992

Mountain precipitation during March was about 35 percent of average lowering the cumulative precipitation since October 1 to about 80 percent of average. Mountain snowpacks continued to deteriorate during March and most basins now report snowpacks between 65 and 75 percent of average. Soils are recharged by melting snow except at the lower elevations where the snowpacks are depleted. Reservoir storage levels are near to below average except the combined storage in the four Camas Reservoirs where above average storage is reported. Streamflows for the spring and summer period are forecast to be below average in the 70 to 80 percent of average range. Surface Water Supply Indices generally range from -2.8 to -3.5.

FLATHEAD RIVER BASIN
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	50% (Most Prob) (% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
NF FLATHEAD nr Columbia Falls							
APR-JUL	1090	1200	1270	76	1340	1450	1662
APR-SEP	1200	1320	1400	76	1480	1600	1836
MF FLATHEAD nr West Glacier							
APR-JUL	1060	1190	1280	78	1370	1500	1638
APR-SEP	1160	1300	1400	78	1500	1640	1788
SF FLATHEAD nr Columbia Fls (1,2)							
APR-JUL	1170	1380	1470	72	1560	1770	2051
APR-SEP	1240	1470	1570	72	1670	1900	2184
FLATHEAD at Columbia Falls (2)							
APR-JUL	3540	3870	4090	75	4310	4640	5482
APR-SEP	3830	4200	4450	75	4700	5070	5960
STILLWATER nr Whitefish							
APR-JUL	118	130	138	73	146	158	189
APR-SEP	127	141	151	72	161	175	209
WHITEFISH nr Kalispell							
APR-JUL	54	63	70	67	77	87	104
APR-SEP	59	69	76	66	83	93	116
SWAN nr Bigfork							
APR-JUL	370	410	440	75	470	510	583
APR-SEP	420	470	505	76	540	590	665
FLATHEAD nr Polson (1,2)							
APR-JUL	3560	4230	4540	71	4850	5520	6390
APR-SEP	3780	4560	4910	71	5260	6040	6926

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

FLATHEAD RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
CAMAS (4)		NO REPORT		
MISSION VALLEY (8)		NO REPORT		
HUNGRY HORSE	3451.0	1951.0	1714.0	2046.0
FLATHEAD LAKE	1791.0	587.7	858.2	751.9

FLATHEAD RIVER BASIN
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
NORTH FORK FLATHEAD	14	53	68
MIDDLE FORK FLATHEAD	12	57	69
SOUTH FORK FLATHEAD	12	62	74
STILLWATER-WHITEFISH	5	56	68
SWAN	14	65	74
MISSION VALLEY	7	65	72
LITTLE BITTERROOT-ASHLEY	7	46	53
JOCKO	7	71	76
FLATHEAD	54	58	70

UPPER CLARK FORK RIVER BASIN as of April 1, 1992

Mountain precipitation for March was about half of average for March. Cumulative precipitation since October 1 now stands at about 75 percent of average. Basinwide snowpack conditions are well below average in the 65 to 70 percent of average range. Soil moisture deficits are being replenished by melting snow except at the lower elevations where the snowpacks are depleted. Deep soil profiles remain drier than normal. Reservoir storage levels are near average. Spring and summer streamflows are expected to be well below normal with some of the smaller tributary streams forecast to have near record low flows. The Surface Water Supply Indices range from -2.4 to -3.5.

UPPER CLARK FORK RIVER BASIN
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	50% (Most Prob) (% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
MOULTON RES inflow (million gal.)							
APR-JUN	65	107	135	64	164	205	212
APR-JUL	74	122	155	66	188	235	234
WARM SPRINGS CK at Anaconda (2)							
APR-JUL	13.0	20	24	63	28	35	38
APR-SEP	20	27	32	68	37	45	47
LITTLE BLACKFOOT nr Garrison							
APR-JUL	-2.0	26	45	54	64	92	83
APR-SEP	-3.0	27	48	54	69	99	89
FLINT CK nr Southern Cross (2)							
APR-JUL	2.1	5.2	7.3	51	9.4	12.5	14.2
APR-SEP	2.3	6.2	8.9	53	11.6	15.5	16.7
FLINT CK bl Boulder Ck							
APR-JUL	13.0	24	32	56	40	51	57
APR-SEP	19.0	33	42	58	51	65	73
LOWER WILLOW CK RES inflow							
APR-JUL	2.9	4.3	6.0	43	8.3	11.7	14.0
APR-SEP	3.4	4.7	6.6	45	9.0	12.5	14.8
MF ROCK CK nr Philipsburg							
APR-JUL	30	38	43	65	48	56	66
APR-SEP	35	43	49	66	55	63	74
ROCK CK nr Clinton							
APR-JUL	111	146	170	57	194	230	296
APR-SEP	129	168	195	59	220	260	333
NEVADA CK nr Finn							
APR-JUL	4.4	6.1	8.7	46	12.3	17.5	19.1
APR-SEP	5.0	6.9	9.7	46	13.5	19.0	21
CLEARWATER nr Clearwater							
APR-JUL	93	104	112	65	120	131	172
APR-SEP	99	110	118	65	126	137	181
BLACKFOOT nr Bonner							
APR-JUL	385	465	520	62	575	655	835
APR-SEP	445	535	595	64	655	745	926

CLARK FORK ab Milltown							
APR-JUL	153	280	370	57	460	585	652
APR-SEP	192	335	435	58	535	680	755
CLARK FORK ab Missoula							
APR-JUL	570	760	890	60	1020	1210	1487
APR-SEP	675	885	1030	61	1170	1380	1681

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

UPPER CLARK FORK RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
GEORGETOWN LAKE	31.0	27.6	29.6	24.8
LOWER WILLOW CREEK	4.9	2.4	2.3	2.3
NEVADA CREEK		NO REPORT		

UPPER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
CLARK FORK ab FLINT CREEK	28	84	71
FLINT CREEK	13	85	68
ROCK CREEK	5	81	70
CLARK FORK ab BLACKFOOT	44	81	69
BLACKFOOT	23	65	65
UPPER CLARK FORK	63	75	68

BITTERROOT RIVER BASIN as of April 1, 1992

Mountain precipitation was about 40 percent of average for March. The cumulative precipitation since October 1 is now to about 80 percent of average. Basinwide snowpacks are well below average in the 60 to 65 percent of average range. Mountain snow except at the lower elevations where the snowpacks are depleted. Storage in Como and Painted Rocks Reservoirs are below to well below average. Streamflows for the spring and summer period are expected to be well below average in the 60 to 70 percent of average range. The Surface Water Supply Index for the Bitterroot River is -3.3.

BITTERROOT RIVER BASIN
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
WF BITTERROOT nr Conner (2)							
APR-JUL	52	72	85	56	99	118	152
APR-SEP	59	81	95	57	109	131	166
BITTERROOT nr Darby							
APR-JUL	196	250	290	59	330	385	491
APR-SEP	235	290	330	61	370	425	540
ROCK CK nr Darby (2)							
APR-JUL	38	45	50	63	55	63	79
APR-SEP	40	47	52	63	57	65	83
SKALKAHO CK nr Hamilton							
APR-JUL	21	26	30	65	34	39	46
APR-SEP	26	32	36	68	40	46	53
BURNT FORK CK nr Stevensville (2)							
APR-JUL	11.1	15.6	18.6	64	22	26	29
APR-SEP	13.0	18.0	22	65	26	31	34
BITTERROOT at Missoula							
APR-JUL	615	735	820	63	905	1030	1301
APR-SEP	685	815	905	64	995	1130	1418

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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(2) - The value is natural flow - actual flow may be affected by upstream water management.

BITTERROOT RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
PAINTED ROCKS LAKE	31.7	3.9	2.0	13.6
COMO		NO REPORT		

BITTERROOT RIVER BASIN
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
WEST FORK BITTERROOT	8	80	65
EAST SIDE BITTERROOT	7	75	65
WEST SIDE BITTERROOT	9	69	60
BITTERROOT	24	73	63

LOWER CLARK FORK RIVER BASIN as of April 1, 1992

Mountain precipitation totals for March were about 40 percent of average bringing the cumulative totals since October 1 down to about 75 percent of average. Basin snowpack conditions are well below average in the larger upstream river basins and in the smaller tributary basins below Missoula. Most basins are reporting between 60 and 70 percent of average snowpack. Storage in Noxon Reservoir is about 140 percent of average. Spring and summer streamflows are forecast to be well below average in the 55 to 65 percent of average range. The Surface Water Supply Indices range from -3.0 on the Clark Fork below Missoula to -2.9 for the Clark Fork below the Flathead River.

LOWER CLARK FORK RIVER BASIN
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	50% (Most Prob) (% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
CLARK FORK ab Missoula							
APR-JUL	570	760	890	60	1020	1210	1487
APR-SEP	675	885	1030	61	1170	1380	1681
CLARK FORK bl Missoula							
APR-JUL	1220	1510	1710	61	1910	2200	2788
APR-SEP	1400	1720	1940	63	2160	2480	3099
CLARK FORK at St. Regis (1)							
APR-JUL	1220	1880	2180	59	2480	3140	3686
APR-SEP	1360	2100	2430	59	2760	3500	4095
CLARK FORK nr Plains (1,2)							
APR-JUL	4730	6150	6800	65	7450	8870	10450
APR-SEP	5190	6760	7470	65	8180	9750	11470
THOMPSON nr Thompson Falls							
APR-JUL	66	94	114	53	134	163	214
APR-SEP	83	116	138	58	160	193	240
PROSPECT CK at Thompson Falls							
APR-JUL	38	56	68	55	80	99	123
APR-SEP	44	64	77	58	90	110	132
CLARK FK at Whitehorse Rpds (1,2)							
APR-JUL	4880	6540	7290	62	8040	9700	11730
APR-SEP	5380	7200	8030	62	8860	10700	12910

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

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(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

LOWER CLARK FORK RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
NOXON RAPIDS	335.0	320.8	331.7	231.3

LOWER CLARK FORK RIVER BASIN
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
UPPER CLARK FORK	63	75	68
BITTERROOT	24	73	63
LOWER CLARK FORK	23	68	67
CLARK FORK TOTAL	102	71	66
FLATHEAD	44	57	70
PEND OREILLE	147	65	67

JEFFERSON RIVER BASIN as of April 1, 1992

Mountain precipitation during March was about 45 percent of average bringing the cumulative precipitation since October 1 down to about 80 percent of average. Basinwide snowpack conditions have deteriorated during the month and are now below average ranging from about 70 to 80 percent of average. Some isolated high elevational areas in the Ruby and Big Hole River Basins still report near average snowpacks. Soil moisture deficits are being replenished by melting snow except at the lower elevations where the snowpack is depleted. The deeper soil profiles remain drier than normal. Reservoir storage levels are near average in Ruby Reservoir and below to well below average in Clark Canyon and Lima Reservoirs respectively. Spring and summer streamflows are forecast to be between 80 and 85 percent of average on the Big Hole and Ruby River Drainages. Elsewhere, forecasts range from about 55 to 65 percent of average. The Red Rock River near Monida is expected to have near record low flows. The Surface Water Supply Indices range from -2.5 to -3.2 except for the Ruby River Basin which is -1.7.

JEFFERSON RIVER BASIN
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	50% (Most Prob) (% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
RED ROCK RIVER near Monida (2)							
APR-JUL	24	34	47	48	62	84	97
APR-SEP	26	40	56	53	73	98	105
BEAVERHEAD RIVER near Grant (2)							
APR-JUL	33	46	70	53	103	152	132
APR-SEP	39	54	91	59	130	187	155
BEAVERHEAD RIVER at Barratts (2)							
APR-JUL	15.0	70	108	63	146	200	172
APR-SEP	29	93	136	67	179	245	203
RUBY RIVER near Alder							
APR-JUL	44	58	68	82	78	93	83
APR-SEP	56	73	85	86	97	114	99
BIG HOLE RIVER near Melrose							
APR-JUL	330	435	510	80	585	690	641
APR-SEP	360	475	555	80	635	750	697
BOULDER RIVER near Boulder							
APR-JUL	15.0	36	50	59	64	85	85
APR-SEP	17.0	40	55	60	71	93	91
WILLOW CREEK near Harrison							
APR-JUL	2.1	8.0	12.0	68	16.0	22	17.7
APR-SEP	2.8	9.4	13.8	69	18.2	25	20
JEFFERSON near Three Forks (2)							
APR-JUL	166	445	635	68	825	1100	935
APR-SEP	210	500	700	68	900	1190	1027

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

JEFFERSON RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
LIMA	84.0	14.4	13.4	36.9
CLARK CANYON	255.6	131.7	102.0	153.6
RUBY RIVER	38.8	33.3	29.9	31.2

JEFFERSON RIVER BASIN
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
BEAVERHEAD	33	109	79
RUBY	14	106	80
BIGHOLE	28	99	78
BOULDER	15	84	70
JEFFERSON	73	99	77

MADISON RIVER BASIN as of April 1, 1992

Mountain precipitation during March was about 40 percent of average lowering the cumulative total since October 1 to about 80 percent of average. Basinwide snowpack conditions are below average in the 75 to 85 percent of average range. Mountain soil moisture deficits are being replenished from melting snow but the deeper soil profiles remain drier than normal. Valley soils are drier than normal. Reservoir storage is near average in Hebgen Lake. Streamflows are forecast to be below average for the the spring and summer period. The Surface Water Supply Index for the Madison River Basin is -1.6.

MADISON RIVER BASIN
Streamflow Forecasts - April 1, 1992

	<=== Drier ===		Future Conditions		=== Wetter ===>		
Forecast Pt	========== Chance of Exceeding * ==========						
Forecast Period	90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
MADISON RIVER near Grayling (2)							
APR-JUL	260	295	320	84	345	380	380
APR-SEP	355	395	425	87	455	495	486
MADISON RIVER near McAllister (2)							
APR-JUL	445	510	550	83	590	655	662
APR-SEP	595	665	710	85	755	825	831

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

MADISON RIVER BASIN as of April 1, 1992

Moderate precipitation during March was about 40 percent of average lowering the cumulative total since October 1 to about 80 percent of average. Snowmelt snowpack conditions are below average in the 75 to 85 percent of average range. Mountain soil moisture deficits are being replenished from melting snow but the deeper soil profiles remain drier than normal. Valley soils are drier than normal. Reservoir storage is near average in Hedges Lake. Streamflows are forecast to be below average for the spring and summer period. The surface water supply index for the Madison River Basin is -1.5.

MADISON RIVER BASIN
Streamflow Forecasts - April 1, 1992

Forecast Pt	<--- Drier --- Future Conditions --- Wetter --->					
	<---------- Chance of Exceeding * ---------->					
Period	90%	70%	30% (Most Prob)	10%	30 Yr Avg	
(1000AF)	(1000AF)	(1000AF)	(% AVG.)	(1000AF)	(1000AF)	(100%AVG)

MADISON RIVER near Grayling (2)

APR-JUL	290	295	330	86	345	380	390
APR-SEP	315	395	425	87	455	485	486

MADISON RIVER near McAllister (2)

APR-JUL	485	710	790	84	940	855	882
APR-SEP	595	805	710	85	755	825	831

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are normally 25 and 75% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

MADISON RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
ENNIS LAKE	41.0	29.8	30.5	33.2
HEBGEN LAKE	377.5	250.7	271.4	246.6

MADISON RIVER BASIN
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
MADISON above HEBGEN	14	92	77
LOWER MADISON	19	88	74
MADISON	32	90	74

GALLATIN RIVER BASIN as of April 1, 1992

Mountain precipitation during March was about 40 percent of average. The cumulative precipitation since October 1 is now about 70 percent of average. Basin snowpack conditions continued to deteriorate during the month and are now in the 65 to 70 percent of average range. Melting snow is replenishing mountain soil moisture deficits but the deeper soil profiles remain drier than normal. Valley soils are drier than normal. Storage in Middle Creek Reservoir is about 75 percent of average. Spring and summer streamflows are forecast to be in the 65 to 75 percent of average range. The Surface Water Supply Index for the Gallatin River Basin is -3.1.

GALLATIN RIVER BASIN
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions — Chance of Exceeding * — 50% (Most Prob) (1000AF)	(% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
GALLATIN RIVER near Gateway							
APR-JUL	260	300	330	75	360	400	441
APR-SEP	310	355	385	74	415	460	518
E & W FK HYALITE CK nr Bozeman							
APR-JUL	12.2	15.1	17.1	74	19.1	22	23
APR-SEP	14.0	17.1	19.2	74	21	24	26
HYALITE CREEK near Bozeman (2)							
APR-JUL	18.0	23	26	72	29	34	36
APR-SEP	20	26	29	69	33	38	42
GALLATIN RIVER at Logan							
APR-JUL	198	280	340	68	400	480	498
APR-SEP	240	330	390	67	450	540	581

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

GALLATIN RIVER BASIN

Streamflow Forecasts - April 1, 1992

Forecast Pt	Period	<--- Drier --- Future Conditions --- Wetter --->				
		Chance of Exceeding *				
		90% (DRIEST)	70% (10DRY)	50% (AVG.)	30% (10WET)	10% (WETTEST)
GALLATIN RIVER near Gallatin						
APR-JUL		200	300	370	440	540
APR-SEP		310	365	415	465	515
E & W FK BOZEMAN CR at Bozeman						
APR-JUL		12.2	13.1	14.1	15.1	16.0
APR-SEP		14.0	15.1	16.2	17.3	18.4
BRIDGER CREEK near Bozeman (2)						
APR-JUL		18.0	23	26	29	34
APR-SEP		20	26	29	33	39
GALLATIN RIVER at Logan						
APR-JUL		190	240	280	320	380
APR-SEP		240	290	330	370	420

* 90%, 70%, 30%, and 10% Chances of Exceeding are the probabilities that the actual flow will exceed the volumes in the table

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

GALLATIN RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
MIDDLE CREEK	8.0	3.0	5.1	4.1

GALLATIN RIVER BASIN
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
UPPER GALLATIN	13	83	70
EAST GALLATIN	12	86	68
GALLATIN	22	85	69

MAINSTEM MISSOURI RIVER BASIN as of April 1, 1992

Mountain precipitation was about 45 percent of average during March lowering the cumulative precipitation since October 1 to about 75 percent of average. Snowpacks in the Missouri headwater streams range from about 70 to 75 percent of average. The lower tributary basins below Toston have snowpacks ranging from about 55 percent of average on the Smith, Judith, Musselshell and Milk River Basins to about 70 percent elsewhere. Mountain soil moisture deficits are being replenished by melting snow but the deeper soil profiles remain drier than normal. Valley soils are drier than normal. Reservoir storage levels are generally near average except in Fort Peck Reservoir which reports below average storage. Spring and summer streamflows are forecast to be between 65 and 75 percent of average on the Sun, Teton, Marias, the Missouri mainstem and the Missouri headwater streams. Elsewhere, streamflows are forecast to be in the 45 to 60 percent of average range. The Surface Water Supply Indices range from -2.2 to -2.8 on the Missouri Mainstem.

MAINSTEM MISSOURI RIVER BASIN
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
MISSOURI RIVER at Toston (2)							
APR-JUL	975	1320	1550	75	1780	2130	2075
APR-SEP	1200	1580	1830	76	2080	2460	2411
PRICKLY PEAR CREEK nr Clancy							
APR-JUL	5.8	7.8	12.7	55	19.0	28	23
APR-SEP	6.7	9.4	14.8	55	22	32	27
SUN RIVER at Gibson Dam (2)							
APR-JUL	210	285	335	70	385	460	478
APR-SEP	245	325	375	71	430	505	526
MISSOURI RIVER at Fort Benton (2)							
APR-JUL	880	1670	2200	71	2730	3520	3087
APR-SEP	1180	2040	2620	71	3200	4060	3711
MARIAS RIVER near Shelby (2)							
APR-JUL	76	220	320	72	420	565	447
APR-SEP	84	235	340	70	445	595	487
MISSOURI RIVER at Virgelle (2)							
APR-JUL	930	1890	2550	71	3210	4170	3595
APR-SEP	1180	2230	2950	70	3670	4720	4207
MISSOURI RIVER near Landusky (2)							
APR-JUL	905	2020	2780	71	3540	4660	3897
APR-SEP	1220	2430	3250	71	4070	5280	4589
MISSOURI RIVER blw Fort Peck (2)							
APR-JUL	670	1940	2810	70	3680	4950	4015
APR-SEP	755	2150	3100	69	4050	5440	4467
LAKE SAKAKAWEA Inflow (2)							
APR-JUL	3450	5760	7330	72	8900	11200	10120
APR-SEP	3600	6320	8160	72	10000	12700	11346

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

MAINSTEM MISSOURI RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
CANYON FERRY LAKE	2043.0	1432.0	1429.0	1489.0
HELENA VALLEY	9.2	4.0	4.7	4.0
LAKE HELENA	10.4	10.9	10.9	10.2
HAUSER & HELENA	61.9	63.1	63.1	61.0
HOLTER LAKE	81.9	81.2	81.9	67.2
FORT PECK LAKE (MAF)	18.9	11.6	10.5	14.9

MAINSTEM MISSOURI RIVER BASIN
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
MISSOURI HEADWATERS	112	94	74
WEST SIDE MISSOURI	12	80	72
SMITH-BELT	11	68	60
MAINSTEM MISSOURI	23	73	66
SUN-TETON-MARIAS	19	55	70
JUDITH-MUSSELSHELL	19	69	59
MISSOURI above FORT PECK	158	83	72
MILK RIVER	12	47	57
MISSOURI in MONTANA	167	82	71
MISSOURI blw YELLOWSTONE	267	81	73

SMITH-JUDITH-MUSSELSHELL RIVER BASINS as of April 1, 1992

Mountain precipitation was about 45 percent of average during March dropping the cumulative total since October 1 to about 70 percent of average. Mountain snowpacks are well below average with the basinwide snowpacks being in the 50 to 60 percent of average range. Soil moisture deficits are being replenished by melting snow but the deeper soil profiles remain drier than normal. Reservoir storage levels are below average in Smith and Martinsdale Reservoirs and above average elsewhere. Streamflows for the spring and summer period are expected to be well below average. Forecasts range from about 45 to 60 percent of average with the Musselshell Basin forecast to have near record low flows. The Surface Water Supply Indices are -3.2 for the Smith River Basin and -1.0 for the Musselshell River Basin where reservoir storage levels remain good.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	50% (Most Prob) (% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
SMITH RIVER nr Ft. Logan							
APR-JUL	14.0	20	32	52	46	65	62
APR-SEP	17.0	25	39	53	53	75	73
SHEEP CK nr White Sulphur Springs							
APR-JUL	5.9	8.5	10.2	56	11.9	14.5	18.1
APR-SEP	7.6	10.5	12.5	60	14.5	17.4	21
NF MUSSELSHELL near Delpine							
APR-JUL	1.2	1.6	2.2	46	3.0	4.1	4.8
APR-SEP	1.5	2.0	2.8	50	3.7	5.0	5.6
SF MUSSELSHELL abv Martinsdale							
APR-JUL	12.0	17.0	24	46	37	56	52
APR-SEP	13.0	19.0	26	46	40	60	56

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
SMITH RIVER	10.6	5.4	5.9	7.4
NEWLAN CREEK	12.4	10.9	9.4	8.3
BAIR	7.0	5.9	3.5	4.7
MARTINSDALE	23.1	7.9	7.8	9.7
DEADMAN'S BASIN	72.2	67.0	39.6	50.1

SMITH-JUDITH-MUSSELSHELL RIVER BASINS
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SMITH-BELT	11	68	60
JUDITH-MUSSELSHELL	19	69	59

SUN-TETON-MARIAS RIVER BASINS as of April 1, 1992

Mountain precipitation during March was about 45 percent of average bringing the cumulative precipitation since October 1 down to about 75 percent of average. Snowpack conditions continued to deteriorate during the month and basinwide snowpacks now stand at about 70 percent of average. Mountain soils generally have near average moisture contents. Valley soils are drier than normal. Reservoir storage levels range from near to well above average. Streamflows for the spring and summer period are expected to be below average with most forecasts being in the 70 to 75 percent of average range. The Surface Water Supply Indices generally range from -2.0 to -2.4.

SUN-TETON-MARIAS RIVER BASINS
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions — Chance of Exceeding * — 50% (Most Prob) (1000AF)	(% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
SUN RIVER at Gibson Dam (2)							
APR-JUL	210	285	335	70	385	460	478
APR-SEP	245	325	375	71	430	505	526
TWO MEDICINE CREEK nr Browning (2)							
APR-JUL	83	128	158	73	188	235	215
APR-SEP	94	138	168	74	198	240	228
BADGER CREEK near Browning (2)							
APR-JUL	40	62	76	73	91	112	104
APR-SEP	52	75	90	75	106	128	120
SWIFT RESERVOIR Inflow nr Dupuyer							
APR-JUL	25	41	52	76	63	79	68
APR-SEP	34	51	62	78	74	91	80
DUPUYER CREEK near Valier							
APR-JUL	3.7	5.1	10.1	65	17.3	28	15.5
APR-SEP	4.3	5.9	11.4	66	19.0	30	17.4
CUT BANK CREEK at Cut Bank							
APR-JUL	36	52	63	72	74	90	87
APR-SEP	43	59	70	73	81	97	96
MARIAS RIVER near Shelby (2)							
APR-JUL	76	220	320	72	420	565	447
APR-SEP	84	235	340	70	445	595	487

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

SUN-TETON-MARIAS RIVER BASINS
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
GIBSON	99.1	62.7	46.9	50.5
PISHKUN	32.0	18.8	18.4	17.8
WILLOW CREEK	32.2	30.0	27.9	22.8
LOWER TWO MEDICINE LAKE	11.9	11.7	----	7.5
FOUR HORNS LAKE	19.2	12.5	----	12.5
SWIFT	30.0	17.1	22.9	17.2
LAKE FRANCES	112.0	85.2	69.0	71.6
LAKE ELWELL (TIBER)	1347.0	662.7	668.3	596.7

SUN-TETON-MARIAS RIVER BASINS
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
SUN-TETON	12	55	70
MARIAS	8	55	70
SUN-TETON-MARIAS	19	55	70

ST. MARY and MILK RIVER BASINS as of April 1, 1992

Mountain precipitation was about 40 percent of average dropping the cumulative total since October 1 to about 60 percent of average. Basin snowpacks are about 65 percent of average in the headwater areas of the Milk and St. Mary River Basins. The Bear Paw Mountains report only about 20 percent of average snowpack. Reservoir storage levels are generally near to above average except in Lake Sherburne which has been lowered to about 40 percent of average storage. Streamflows for the spring and summer period are forecast to be below average in the St. Mary and Milk headwater areas and well below average elsewhere. The Surface Water Supply Index for the Milk River USBR project users is -2.8 while the Surface Water Supply Index for other users is -3.7

ST. MARY and MILK RIVER BASINS
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
SWIFTCURRENT CK at Sherburne (2)							
APR-JUL	66	75	81	74	87	96	110
APR-SEP	80	89	96	75	103	113	128
ST. MARY RIVER near Babb (2)							
APR-JUL	225	265	295	73	325	365	404
APR-SEP	270	320	350	74	380	430	474
MILK RIVER at Eastern Crossing (2)							
APR-SEP	180	200	218	94	233	255	233
MAR-SEP	210	230	251	97	260	280	258

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

ST. MARY and MILK RIVER BASINS
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
LAKE SHERBURNE	64.3	9.8	37.6	24.8
FRESNO	127.0	83.9	57.0	77.1
BEAVER CREEK	3.5	3.3	3.2	2.2
NELSON	66.8	35.6	33.9	36.5

ST. MARY and MILK RIVER BASINS
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
MILK HEADWATERS	5	50	66
BEAR PAW	7	25	21
MILK RIVER	12	47	57
ST. MARY	7	52	66
ST. MARY and MILK	14	49	60
BOW RIVER in ALBERTA	22	54	79
OLDMAN RIVER in ALBERTA	6	46	65

UPPER YELLOWSTONE RIVER BASIN as of April 1, 1992

Mountain precipitation was about half of average during March dropping the cumulative total since October 1 to about 75 percent of average. Snowpack conditions are below to well below average over the basin with the high elevations having the best snowpacks. Basinwide snowpack figures are in the 65 to 75 percent of average range. Mountain soil moisture conditions are generally near normal. Storage in Cooney Reservoir is above average. Streamflows for the spring and summer period are expected to be below average in the 70 to 80 percent of average range except on the Shields River where flows are expected to be about 55 percent of average. The Surface Water Supply Indices generally range from -2.5 to -2.8 with the exception of the Shields River Basin which is -3.4.

UPPER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === 90% (1000AF)	70% (1000AF)	Future Conditions 50% (Most Prob) (1000AF)	(% AVG.)	=== Wetter ===> 30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
YELLOWSTONE at Lake Outlet							
APR-JUL	275	330	370	65	410	465	573
APR-SEP	385	460	510	64	560	635	792
YELLOWSTONE at Corwin Springs							
APR-JUL	990	1120	1210	75	1300	1430	1609
APR-SEP	1190	1340	1440	74	1540	1690	1937
YELLOWSTONE RIVER near Livingston							
APR-JUL	1110	1260	1360	73	1460	1610	1855
APR-SEP	1360	1530	1640	73	1750	1920	2241
SHIELDS RIVER near Livingston							
APR-JUL	4.0	52	85	52	118	166	162
APR-SEP	13.0	63	96	54	130	179	179
BOULDER RIVER at Big Timber							
APR-JUL	197	245	275	82	305	355	335
APR-SEP	215	260	295	81	330	375	364
W. ROSEBUD CREEK near Roscoe (2)							
APR-JUL	37	44	49	80	54	61	61
APR-SEP	52	59	64	81	69	76	79
STILLWATER RIVER nr Absarokee (2)							
APR-JUL	270	345	395	79	445	520	498
APR-SEP	340	415	465	78	515	590	593
CLARKS FORK RIVER near Belfry							
APR-JUL	320	375	415	78	455	510	532
APR-SEP	350	410	450	76	490	550	590
YELLOWSTONE RIVER at Billings							
APR-JUL	1980	2450	2760	77	3070	3540	3577
APR-SEP	2410	2890	3220	76	3550	4030	4211

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

UPPER YELLOWSTONE RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********** This Year	Last Year	Average
MYSTIC LAKE	21.0	0.5	0.8	3.1
COONEY	27.4	21.1	21.5	16.9

UPPER YELLOWSTONE RIVER BASIN
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
YELLOWSTONE ab LIVINGSTON	22	80	70
SHIELDS	9	86	66
BOULDER-STILLWATER	9	85	68
CLARK'S FORK-ROCK CREEK	19	85	75
YELLOWSTONE above BIGHORN	52	82	70

LOWER YELLOWSTONE RIVER BASIN as of April 1, 1992

Mountain precipitation during March was about 85 percent of average. Cumulative precipitation since October 1 also stands at about 85 percent of average. Basin snowpack conditions are generally in the 70 to 75 percent of average except on the Powder River Basin which reports about 90 percent of average snowpack. Mountain soil moisture conditions are near normal. Storage in Big Horn Lake is near average while Tongue River Reservoir has below average storage. Spring and summer streamflows are expected to range from about 65 percent of average on the Big Horn River near St. Xavier to about 85 percent of average on the Powder River at Locate. The Surface Water Supply Indices range from -0.6 on the Powder River Basin to -2.5 on the Little Big Horn River Basin.

LOWER YELLOWSTONE RIVER BASIN
Streamflow Forecasts - April 1, 1992

Forecast Pt / Forecast Period	<=== Drier === Future Conditions === Wetter ===> Chance of Exceeding * 90% (1000AF)	70% (1000AF)	50% (Most Prob) (1000AF)	50% (Most Prob) (% AVG.)	30% (1000AF)	10% (1000AF)	30 Yr Avg (1000AF)
YELLOWSTONE RIVER at Billings							
APR-JUL	1980	2450	2760	77	3070	3540	3577
APR-SEP	2410	2890	3220	76	3550	4030	4211
BIG HORN RIVER nr St. Xavier (2)							
APR-JUL	420	805	1070	65	1330	1720	1645
APR-SEP	445	860	1140	64	1420	1840	1794
LITTLE BIGHHORN RIVER nr Hardin							
APR-JUL	12.0	68	106	76	144	200	140
APR-SEP	17.0	78	120	75	162	225	160
TONGUE RIVER near Decker (2)							
APR-JUL	51	122	170	75	220	290	227
APR-SEP	65	139	190	78	240	315	244
YELLOWSTONE at Miles City (2)							
APR-JUL	2290	3290	3970	73	4650	5650	5431
APR-SEP	2670	3760	4500	72	5240	6330	6281
POWDER RIVER at Moorhead							
APR-JUL	19.0	109	170	81	230	320	211
POWDER RIVER near Locate							
APR-JUL	94	145	215	85	290	395	252
YELLOWSTONE RIVER nr Sidney (2)							
APR-JUL	2590	3630	4340	76	5050	6090	5695
APR-SEP	2960	4110	4890	72	5670	6820	6814

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
(2) - The value is natural flow - actual flow may be affected by upstream water management.

LOWER YELLOWSTONE RIVER BASIN
Reservoir Storage (1000AF) End of March

Reservoir	Usable Capacity	********** Usable Storage ********* This Year	Last Year	Average
BIGHORN LAKE	1356.0	820.5	708.7	798.5
TONGUE RIVER		NO REPORT		

LOWER YELLOWSTONE RIVER BASIN
Watershed Snowpack Analysis - April 1, 1992

Watershed	Number of Data Sites	This Year as Percent of Last Year	Average
BIG HORN (Wyoming)	50	78	75
LITTLE BIGHORN	4	76	76
TONGUE RIVER (Wyoming)	15	73	77
POWDER RIVER (Wyoming)	11	86	92
YELLOWSTONE RIVER	113	81	74